



King County

Department of Natural Resources and Parks

Wastewater Treatment Division

King Street Center, KSC-NR-0505

201 South Jackson Street

Seattle, WA 98104

Environmental Checklist

for the

Barton Pump Station Upgrade Project

June 2010

Prepared in compliance with the State Environmental Policy Act (SEPA) (RCW 43.21C), the SEPA Rules (WAC 197-11), and Chapter 20.44 King County Code, implementing SEPA in King County procedures.

This information is available in accessible formats upon request at
206-684-1280 (voice) or 711 (TTY).



DETERMINATION OF NONSIGNIFICANCE (DNS)

TITLE OF PROPOSAL: Barton Pump Station Upgrade Project

DESCRIPTION OF PROPOSAL: The King County Wastewater Treatment Division (WTD) proposes to upgrade the existing Barton Street Pump Station. The upgrade will include installation of a new stand-by power diesel engine generator and underground diesel fuel storage tank, a new odor control system, new raw sewage pumps, discharge piping, and valve system. The existing pump station will be modified and two new partially underground rooms will be constructed to house this equipment. The proposed project will also include replacement of the pump station's electrical and mechanical equipment; upgrade of the heating, ventilation and air conditioning system; structural modifications; and restoration of the street-end park damaged during the 2006 emergency repair of the Barton force main. The objective of the proposal is to improve the reliability, operability, and safety of the Barton Street Pump Station and extend the useful life of the facility. Construction of the proposed project is scheduled to start in Summer 2012 and take 30-36 months to complete.

LOCATION OF PROPOSAL, INCLUDING STREET ADDRESS, IF ANY: The project site and existing Barton Street Pump Station are located at 9001 Fauntleroy Way Southwest in City of Seattle right-of-way. The parcel north of and adjacent to the pump station site is owned by King County and will be used for construction staging. The house on the parcel will be used as a construction office. The street address of this property is 8923 Fauntleroy Way Southwest in Seattle. The proposal is located in the southwest quarter of Section 35, Township 24N, Range 3E.

Responsible Official: Christie True
Position/Title: Division Director, King County Wastewater Treatment Division
Address: 201 South Jackson Street
Seattle, WA 98104

Date: 5/27/2010

Signature: 

Proponent and Lead Agency: King County Wastewater Treatment Division

Contact Person: Sue Meyer
Environmental Planning
201 S. Jackson St., MS KSC-NR-0505
Seattle, WA 98104, 206-684-1171

Issue Date: June 1, 2010

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

☒ This DNS is issued under WAC 197-11-340 (2); the lead agency will not act on this proposal for 14 days from the issue date. **Comments must be submitted by 5:00 PM on June 15, 2010.** Submit comments to Wesley Sprague, Supervisor, Community Services and Environmental Planning Unit, 201 South Jackson Street, MS: KSC-NR-0505, Seattle, WA 98104-3855.

☒ The King County Wastewater Treatment Division intends to submit a Shoreline Substantial Development Permit application to the City of Seattle on June 1, 2010, thus there is no administrative appeal of this DNS pursuant to RCW 43.21C.075, WAC 197-11-680, KCC 20.44.120 and King County Public Rule 7-4. If you have questions about the procedures for SEPA appeals, please contact Sue Meyer, 206-684-1171 or sue.meyer@kingcounty.gov.

Statutory authority: RCW 43.21C.110. 84-05-020 (Order DE 83-39), §197-11-970, filed 2/10/84, effective 4/4/84

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of the proposed project:

Barton Pump Station Upgrade Project

2. Name of Applicant:

King County Department of Natural Resources and Parks
Wastewater Treatment Division

3. Address and telephone number of applicant and contact person:

King County Department of Natural Resources and Parks
Wastewater Treatment Division
201 South Jackson
Seattle, WA 98104-3855

CONTACT: Sue Meyer, Environmental Planner
Telephone: (206) 684-1171, Email: sue.meyer@kingcounty.gov

4. Date checklist prepared:

May 25, 2010

5. Agency requesting checklist:

King County Department of Natural Resources and Parks
Wastewater Treatment Division

6. Proposed timing or schedule (including phasing, if applicable):

WTD plans to begin construction of the proposed project in Summer 2012. It is anticipated that it will take approximately 30-36 months to complete the proposed project. Because space at the project site is very limited, construction of the proposed new facilities will be phased to maintain adequate room at the site for necessary construction equipment and materials. Construction sequencing will be determined by the contractor.

Construction tasks that require intermittent partial or full closure of the Washington State Department of Transportation's (WDOT's) north Fauntleroy Ferry Terminal

access lane will be performed during the off-peak ferry terminal season (October 1-May 15) or during the peak season on weekdays before 2:00 PM.

Electrical utility relocation required for the project may be completed by Seattle City Light prior to Summer 2012. This work is described in Section B.16.b and would take approximately one month to complete.

7. Plans for future additions, expansion, or further activity related to or connected with this proposal:

No future activities related to this proposal are planned at this time.

WTD is currently planning a combined sewer overflow (CSO) control project for the Barton wastewater basin. However, that proposal has not yet been defined. The Barton Pump Station Upgrade Project is not dependent on a CSO control project.

8. Environmental information that has been prepared, or will be prepared, directly related to this project:

Phase I Environmental Site Assessment – Barton Street Pump Station, 9001 Fauntleroy Way SW, Seattle, Washington, Herrera Environmental Consultants, March 2004

Geotechnical Study – Barton Pump Station Upgrade, Seattle, Washington, for King County Wastewater Treatment Division, Cornerstone Geotechnical, Inc., May 12, 2009

Report of Geotechnical Engineering Services – Barton Pump Station Improvement Project, GeoDesign, Inc., January 20, 2004

Archaeological Monitoring of Emergency Construction Excavations for the Barton Forcemain, King County, Washington, BOAS, Inc., August 2006

Technical Memorandum – Barton Street Pump Station Upgrade Project Transportation Impact Analysis, Heffron Transportation Inc., May 4, 2010

State Environmental Policy Act (SEPA) Environmental Checklist – Barton Street Pump Station Emergency Generator Project, King County, February 2004

State Environmental Policy Act (SEPA) Environmental Checklist – Barton Street Pump Station Upgrade Project, King County, September 2006

A report summarizing the findings of groundwater monitoring that has been done in wells on the project site is expected to be available in Summer 2010.

9. Applications that are pending for governmental approvals or other proposals directly affecting the property covered by the proposal:

This SEPA Environmental Checklist replaces the SEPA Environmental Checklist that was prepared for the Barton Street Pump Station Upgrade Project in September 2006 (DNS issued on September 28, 2006).

A Street Use Permit application for long-term use of the Street End Use Park was submitted to the City of Seattle in May 2010 and is pending approval. A Shoreline Substantial Development Permit application will be submitted to the City of Seattle on June 1, 2010.

10. List of governmental approvals or permits that will be needed for the proposal:

Permits and approvals that may be required for this proposed project include:

City of Seattle:

- Shoreline Substantial Development Permit
- Council Conditional Use Permit
- Clearing and Grading Permit
- Building Permit
- Street Use Permit (for construction in public right-of-way)
- Street Use Permit (for long-term use of Street End Use Park)
- Utility Permit or Street Improvement Permit
- Mechanical Permit
- Electrical Permit
- Plumbing Permit
- Fire Marshall Permit and Approval
- Power Feed Modification Approval

King County:

- Industrial Waste Discharge Permit

Puget Sound Air Pollution Control Agency:

- Notice of Construction

Washington State Department of Ecology:

- Underground Fuel Storage Tank Permit

Washington State Department of Transportation (WDOT):

- Approval for modification of ferry dock support structure and traffic revisions

11. Brief, complete description of the proposal, including the proposed uses and the size of the project and site:

King County's Wastewater Treatment Division (WTD) proposes to upgrade the existing Barton Street Pump Station. The upgrade will include installation of a new

stand-by power ("back-up") diesel engine generator and underground diesel fuel storage tank, a new odor control system, and new raw sewage pumps, discharge piping and valve system. The existing pump station will be modified and two new partially underground rooms will be constructed to house this equipment. The proposed project will also include replacement of the pump station's electrical and mechanical equipment; upgrade of the heating, ventilation and air conditioning (HVAC) system; structural modifications to raise the pump station's operating level, reinforce existing walls and raise the roof; and restoration of the street-end park damaged during the 2006 emergency repair of the Barton force main. Please see the attached Existing Conditions and Proposed Site Plans.

The proposed upgrade will improve the reliability, operability and safety of the Barton Street Pump Station and extend the useful life of the facility. The back-up generator will provide power to the pump station and the adjacent Fauntleroy ferry terminal in the event that those facilities' primary power source fails. The new odor control system will reduce wastewater related odors in the vicinity of the pump station and make the facility safer for employees by improving ventilation in the wet well. The new valve system that will connect the pump station's two discharge pipes to two downstream force mains will provide WTD with more options for managing flows. After the valve system is installed, WTD will be able to route flows through one force main, leaving the other force main accessible for inspection, maintenance and repair. The two new raw sewage pumps will increase the pumping capacity of the pump station from its current 26 million gallons per day (mgd) to 33 mgd, which will allow WTD to optimize use of the two downstream force mains' combined capacity of 33 mgd. The pumps will use variable frequency drives and can be operated so that they do not increase the frequency of CSO events downstream of the pump station.

The new approximately 1,760-square-foot generator and odor control rooms will be constructed on the east side of the pump station. They will be bordered to the north by an existing City of Seattle 72-inch-diameter storm sewer outfall pipe, to the east by Fauntleroy Way Southwest's western sidewalk, and to the south by the pump station's existing 60-inch-diameter influent pipe. The generator room will house a stand-by generator and a 200-gallon diesel fuel day tank. A 2,500-gallon underground diesel fuel storage tank will be installed in the northeast corner of the pump station site. An approximately 12-foot-tall generator exhaust stack and an approximately 12-foot-tall fuel vent stack will be located above ground on the southeast corner of the pump station site. The odor control room will house a new odor control unit, new supply and exhaust fans, and a foul air mist eliminator.

The new approximately 495-square-foot valve room will be constructed on the west side of the pump station. The room's lower level will contain the pump station's two new 24-inch-diameter raw sewage discharge pipes and a new valve system that will connect the pipes to two existing 24-inch-diameter force mains. The room's upper level will contain electrical panels, control panels, and a restroom.

A temporary pumping system will be installed to convey sewage around the pump station's dry well when construction is being performed in those areas. The system will consist of two submersible pumps and two surface mounted back-up diesel engine driven pumps. Sewage will be pumped from the wet well and/or the pump station's influent chamber to access points in two downstream force mains located west of the pump station. It is estimated that the temporary pumping system will be required for approximately 20 months.

Electrical utility relocation will be required for the project and a temporary electrical control panel will be housed in a trailer on the project site during construction. Electrical utility relocation may be completed by Seattle City Light prior to Summer 2012. This work is described in Section B.16.b and would take approximately one month to complete.

Construction of some parts of the proposed project will require use of the north Fauntleroy Ferry Terminal access lane. Construction tasks that require use of the lane include driving sheet piles and excavating at the southeast and southwest corners of the project site, moving electrical utilities, and installing pump station anchors. Any tasks requiring continuous use of the north access lane will be performed during the ferry terminal's off-peak season to minimize impacts to ferry operations and traffic.

The parcel of land immediately north of the pump station site will be used for construction staging and the house on the parcel will be used as a construction office. During construction, public access to this parcel and the pump station site will be prohibited. It is anticipated that it will take 30-36 months to complete the proposed project.

12. Location of the proposal, including street address, if any, and section, township, and range; legal description; site plan; vicinity map; and topographical map, if reasonably available:

The project site and existing Barton Street Pump Station structure are located at 9001 Fauntleroy Way Southwest in City of Seattle right-of-way. The site is bordered to the south by the Fauntleroy Ferry Terminal, to the west by Puget Sound beach, to the north by a private residence, and to the east by Fauntleroy Way Southwest. It is located in the southwest quarter of Section 35, Township 24N, Range 3E. Please see the attached Vicinity and Location Maps.

The parcel north of and adjacent to the pump station site is owned by King County. The house on the parcel will be used as a construction office and the rest of the lot will be used for construction staging. The street address of this property is 8923 Fauntleroy Way Southwest.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (underline):

flat, rolling, hilly, steep slopes, mountainous, other: gently sloping

The project site slopes downhill from east to west. The elevation difference between the western edge of Fauntleroy Way Southwest and the beach is approximately 20 feet. A rock garden located in the center of the pump station site slopes steeply upward from the pump station driveway to the paved relatively flat parking area that sits atop the existing underground Barton Street Pump Station structure on the southern half of the site.

b. What is the steepest slope on the site (approximate percent slope)?

The rock garden in the center of the site contains an approximately 50% slope.

c. What general types of soils are found on the site (for example clay, sand, gravel, peat, muck)? Specify the classification of agricultural soils and note any prime farmland.

Soils on the site are Pleistocene outwash sands. On the pump station site a layer of medium dense sand fill lies under approximately 12 inches of asphalt pavement and base rock. The medium dense sand fill extends approximately 11 feet below ground surface (bgs). Dense sand lies under this fill layer from approximately 11 feet bgs to 45 feet bgs.

d. Are there any surface indications or a history of unstable soils in the immediate vicinity? If so, describe.

Yes. The existing pump station and the area designated for the new structures are located in a liquefiable sand layer that ends approximately 15 feet below the existing beach-level ground surface. Excavations for the proposed structures will be deeper than 15 feet and excavated material that is liquefiable will not be used as backfill.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate the source of the fill.

A total of approximately 2,700 cubic yards of soil will be excavated during project construction, as described in the following paragraphs. Up to approximately 1,300 cubic yards of fill will be required.

The area immediately west of the existing pump station structure will be excavated to a depth of approximately 36 feet to construct the new valve room. Sheet piles will be used to shore the walls of the excavation and a tremie concrete slab installed to prevent groundwater from entering the excavation. The area immediately east of the existing pump station structure will be excavated to a depth of approximately 25 feet to construct the new underground

odor control and generator rooms. Sheet piles will be used to shore the walls of the excavation and a tremie slab installed to block groundwater from entering the excavation.

Additional excavation will be required to install the underground diesel fuel storage tank, replace an existing concrete wall along the northern edge of the pump station site, access existing pump station walls so that they can be reinforced, relocate electrical utilities, and install a new water service line between the pump station and a City of Seattle water main on the eastern side of Fauntleroy Way Southwest.

If the native materials are suitable, excavation spoils will be stockpiled and used for backfill. Excavated soils not used as backfill will be legally disposed of off-site at a location determined by the contractor. If the excavated soils are not of the appropriate quality required for backfill, other material will be brought to the site and used as backfill. The source of imported material will be determined by the contractor and meet all pertinent project and legal requirements.

The proposed project will raise the grade on top of the pump station up to four feet higher than its present highest elevation. At its lowest point, the pump station site elevation will not change. The eastern half of the pump station site will be re-graded to accommodate a wider pump station driveway.

Excavated sand, assuming it meets the project requirements, will be stockpiled and used to restore disturbed sand in upland areas. Contract specifications will require that imported sand, if required for restoration, be identical in type to the sand that is disturbed.

f. Could erosion occur as a result of clearing, construction, or use?

Yes. Short-term erosion could result from construction activities on the site. During clearing, grading, and excavation for the proposed new structures, bare soils and stockpiled soils on the site could be exposed. Erosion control measures will be used to minimize potential erosion (see item B.1.h., below). Operation of the proposed new facilities will not result in any erosion.

Short-term erosion could also result from the exposure of stockpiled spoils and fill located at the project staging area(s), but erosion control measures will be used to minimize this potential.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example buildings or asphalt)?

Approximately 6,000 square feet of the approximately 11,000 square-foot pump station site is currently covered with impervious surface. After the project is completed, the site will contain an additional approximately 1,463 square feet

of impervious surface. The percent of impervious surface on the pump station site will increase from 55% to 68%.

h. Describe the proposed measures to reduce or control erosion, or other impacts to the earth, if any.

Project construction activities will utilize construction-related Best Management Practices (BMPs) such as temporary erosion and sediment control measures to minimize the potential for erosion and sedimentation. Typical BMPs that could be used include installing silt fences, covering bare soil and stockpiles, and regularly inspecting and repairing erosion and sediment control measures.

Additional Best Management Practices and other measures could include the following:

- Using settling tanks or other means to prevent sediment from leaving the site;
- Using appropriate means to minimize tracking of sediment onto public roadways by construction vehicles; and
- Restoring disturbed areas by replanting or repaving as soon as practical after construction is completed.

Temporary erosion and sediment control measures will be identified in the project plans and specifications and will be implemented as required by the City of Seattle.

During construction, sheet piles will be used to shore the excavation pits. The method of sheet pile installation will be determined by the contractor. Steps will be taken to ensure that surrounding structures are not damaged as a result of sheet pile installation.

As stated in Section B.1.d, excavated materials that are liquefiable will not be used as backfill.

Construction activities, including construction material and equipment staging, will not take place below Puget Sound's mean higher high water line, as identified on the attached site plan.

Settlement monitoring will be performed during construction to monitor potential disturbances to the existing 72- and 60-inch-diameter sewer pipes and other structures caused by the installation of temporary and permanent shoring.

2. Air

- a. What types of emissions to the air will result from the proposal (e.g., dust, automobile, odors, industrial, wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities, if known.**

During construction, the primary sources of air emissions will include fossil fuel combustion by-products from construction equipment and dust from excavation and grading activity. Some wastewater odors may be detectable for short periods of time when temporary and permanent pump and pipeline connections are made.

If, during construction, wastewater flows are high or one or both of the temporary raw sewage pumps in the wet well fails, one or both of the surface mounted back-up pumps will produce diesel engine emissions.

When the project is completed, diesel engine emissions will be emitted through a new 12-foot-high exhaust stack during maintenance and operation of the stand-by generator. The exhaust stack will improve the dispersal of emissions and keep emissions away from pedestrians. It is anticipated that the stand-by generator will be operated for maintenance purposes once a month for approximately one hour. It is anticipated that the generator will be operated during emergency circumstances one time per year for a maximum of 24 hours each occurrence.

A King County Greenhouse Gas Emissions worksheet is attached.

- b. Are there any off-site sources of emissions or odors that may affect your proposal? If so, generally describe.**

No.

- c. Describe proposed measures to reduce or control emissions or other impacts to air, if any.**

Short-term construction related emissions will be addressed by requiring proper equipment maintenance, prudent equipment operation, and onsite dust control.

During construction, an above-ground temporary odor control unit will be located at the project site to treat foul air associated with wastewater. This unit will operate continuously for approximately 20 months during the construction period. The completed project will include a new odor control unit that will reduce wastewater related odors in the vicinity of the pump station below current levels.

The stand-by generator will use a diesel engine designed to minimize the discharge of gaseous pollutants to the atmosphere. The engine will meet a minimum of Environmental Protection Agency (EPA) Non-road Tier One

diesel engine emissions requirements. In addition, the 12-foot-high stack will reduce emission impacts by increasing emission dispersion as noted in item B.2.a above.

3. Water

a. Surface:

1. **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, and wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

Yes. The project site borders Puget Sound and lies within 200 feet of Fauntleroy Creek. Fauntleroy Creek is located to the south of the project site and discharges to Puget Sound near the Fauntleroy Ferry dock. It is a year round creek fed by springs and runoff with a typical discharge of 0.5 cubic feet per second (cfs).

2. **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Yes. Work will be performed adjacent to (within 200 feet of) Puget Sound and Fauntleroy Creek. The project will not involve any work over or in either water body. The western boundary of the project's construction limits will be Puget Sound's mean higher high water line, as identified on the attached site plan. Fauntleroy Creek is also located outside of the project construction area.

3. **Estimate the amount of fill and dredge material that could be placed in or removed from surface water or wetlands and indicate the area of the site that will be affected. Indicate the source of fill materials.**

None.

4. **Will the proposal require surface water withdrawals or diversion? Give general description, purpose, and approximate quantities, if known.**

No.

5. **Does the proposal lie within a 100-year flood plain? If so, note location on the site plan.**

No.

- 6. Does the proposal involve discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

No. The completed project will reduce the likelihood of emergency overflows of wastewater to Puget Sound during power outages because the proposed new generator will provide back-up power for the Barton Street Pump Station.

b. Ground

- 1. Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

Yes. Since the groundwater level at the site is higher than the proposed excavation depths, some form of dewatering will be required to keep the excavations free of standing water. Sheet piles and tremied concrete slabs (which act as plugs) will be used to help keep groundwater out of the excavations.

Dewatering will be required for a total of approximately 24 months. After the sheet piles and tremied slabs are installed, it will take up to one month of continuous pumping to dewater the excavations. The estimated volume of this initial dewatering effort is about 300,000 gallons. Following that, only minor amounts of groundwater will seep through the sheet piles and it is expected that the dewatering rate for the remainder of the project will be approximately 50 gallons of water per hour.

Dewatering water will be discharged to the King County sewer system or directly to Puget Sound. Discharge of dewatering water to the sewer system will require a King County Industrial Waste Discharge Permit. Any dewatering water discharged directly to Puget Sound will have to meet Washington State Water Quality Standards. Temporary erosion and sediment control BMPs will also be implemented.

- 2. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any. Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) is expected to serve.**

None.

c. Water Runoff (including storm water)

- 1. Describe the source of runoff (including storm water) and method of collection and disposal, if any (including quantities if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

The source of runoff during and after construction will be rainfall. Runoff control measures during and after construction will comply with the City of Seattle's stormwater management requirements. During construction, BMPs will be implemented to prevent sediments from entering the beach area (see Section B.1.h. above). Rainfall accumulating in the excavations will be pumped out and discharged to the King County sanitary sewer system or Puget Sound (see Section 3.b.1).

After the project is completed, stormwater on the pump station's driveway will flow west and infiltrate into a new rain garden that will serve as a bioretention facility. The rain garden soils and plantings will settle, absorb, and filter the stormwater runoff prior to infiltration. Stormwater on the pump station's level parking area will flow into a catch basin located on top of the pump station and enter the pump station's wet well. Some stormwater will infiltrate into the project site's vegetated areas.

- 2. Could waste materials enter ground or surface waters? If so, generally describe.**

Construction-related materials could enter ground or surface waters due to accidental spills, mechanical failures, or if construction activities are performed outside specified conditions.

Raw sewage could enter ground or surface waters during installation, operation, or disconnection of the temporary pumping system that will be used to route sewage around the pump station's dry well.

Following completion of the project, diesel fuel could enter ground or surface waters if accidentally spilled during filling of the 2,500-gallon underground storage tank. It is anticipated that the storage tank will be filled one or two times per year.

See Items B.1.h. above and B.3.d below for measures to minimize the potential for these impacts.

- d. Describe proposed measures to reduce or control surface, ground, and runoff water impacts, if any.**

Erosion and sedimentation control BMPs will be used during construction to reduce and control stormwater runoff impacts. Examples of typical BMPs that will be used during construction are presented in Section B.1.h. Following construction, landscaping will help control some stormwater runoff.

Additional construction BMPs that could be implemented to prevent the introduction of contaminants into surface water or groundwater during construction include:

- maintaining spill containment and clean up materials in areas where equipment fueling is conducted;
- refueling construction equipment and vehicles away from surface waters whenever practicable;
- containing equipment and vehicle wash water associated with construction and keeping it from draining into surface waters;
- storing fuels and other potential contaminants away from excavation sites and surface waters in secured containment areas;
- conducting regular inspections, maintenance and repairs on fuel hoses, hydraulically operated equipment, lubrication equipment, and chemical/petroleum storage containers; and
- establishing a communication protocol for the unlikely event of a spill.

Dewatering water will be monitored and discharged to the King County sewer system or directly to Puget Sound, depending in part on the quality of the dewatering water. Discharges of dewatering water directly to Puget Sound will be routed through a settling tank, if necessary, to reduce turbidity.

A sewer bypass plan will be prepared by the contractor. The plan will include measures that will be taken to prevent spills of sewage and measures that will be taken to contain and clean up spills in the unlikely event that they occur. The temporary wastewater pumping system used to bypass the dry well will include two surface mounted back-up pumps that can be used during peak flows or if one or both of the temporary submersible pumps fail. This will reduce the risk of sewage overflows to Puget Sound.

Structural and operational measures will be taken to minimize the potential for fuel spills associated with the stand-by generator's underground storage tank. The tank will be double-walled and have automatic shut-off valves and a leak detection system. In addition, appropriate BMPs, such as a fuel level indicator, signage to discourage over-filling, and staff training will be implemented to minimize the risk of fuel spills.

The proposed project includes the creation of a new rain garden on the west end of the pump station driveway. After the project is completed, stormwater from the driveway will flow to this bioretention facility.

The project itself is a measure to reduce potential surface water impacts. Installation of a stand-by generator at the pump station will reduce the risk of sanitary sewer overflows. Upgrading of the pump station's equipment will

reduce the potential for equipment failure and resulting overflows of sewage to Puget Sound.

4. Plants

a. Check or circle types of vegetation found on the site:

- ☐ deciduous tree
- ☒ evergreen tree
- ☒ shrubs
- ☒ grass, beach grass
- ☐ pasture
- ☐ crop or grain
- ☐ wet soil plants
- ☐ water plants
- ☐ other

b. What kind and amount of vegetation will be removed or altered?

All vegetation on the pump station site will be removed. This includes landscaping along the site's northern border, landscaping on the site's southeastern corner, and the planted rock garden in the center of the site. Beach grass on the western end of the pump station will also be removed.

Vegetation on the residential property next to the pump station, which will be used for staging, will also be removed or disturbed. This will include grass, shrubs, and beach grass.

c. List threatened or endangered species or critical habitat known to be on or near the site.

No threatened or endangered plant species are known to be on or near the site. It is unlikely that any threatened or endangered plant species will be located on the site since the site contains only paved and landscaped areas.

d. Describe proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on site.

Vegetated areas removed or disturbed during construction (including areas disturbed during the 2006 emergency repair of the Barton force main) will be restored as part of the project, except for approximately 172 square feet of the project site's rock garden and approximately 225 square feet of landscaping on the pump station site's northern border. These areas will be displaced by new underground structures and the transformer pad, respectively. Please see the attached Landscape Planting Plan that was developed by the project team's landscape architect.

Additionally, a new rain garden consisting of dense plantings will be created on the west end of the pump station driveway to provide stormwater quality treatment for runoff from the beach access road.

A landscape irrigation system will be installed at the pump station site, but native plantings will be selected so that they generally will not require irrigation beyond a two-year establishment period.

5. Animals

a. Underline any birds and animals which have been observed on or near the site or are known to be on or near the site:

Fish: bass, salmon, trout, herring, shellfish, other

Amphibians: frogs, salamanders, other

Reptiles: lizards, snakes, turtles, other

Birds: hawks, heron, eagle, songbirds, ducks, other

Mammals: deer, bear, elk, beaver, raccoon, other

b. List any threatened or endangered species or critical habitat near the site.

The following species are listed under the federal Endangered Species Act (ESA) and could be near the site. The proposed project is not expected to affect these species.

Species	ESA Status	Federal Agency w/ ESA Jurisdiction	State Status
southern resident killer whale (<i>Orcinus orca</i>)	E	NOAA	E
humpback whale (<i>Megaptera novaeangliae</i>)	E	NOAA	E
chinook salmon (<i>Oncorhynchus tshawytschav</i>) Puget Sound ESU	T	NOAA	C
bull trout (<i>Salvelinus confluentus</i>) Coastal/Puget Sound DPS	T	USFWS	C
stellar sea lion (<i>Eumetopias jubatus</i>)	T	NOAA	T
marbled murrelet (<i>Brachyramphus marmoratus</i>)	T	USFWS	T
steelhead (<i>Oncorhynchus mykiss</i>)	PT	NOAA	none
coho salmon (<i>Oncorhynchus kisutch</i>) Puget Sound/Strait of Georgia ESU	SOC	NOAA	none

bocaccio rockfish (<i>Sebastes paucispinis</i>) Puget Sound/Georgia Basin DPS	E*	NOAA	none
canary rockfish (<i>Sebastes pinniger</i>) Puget Sound/Georgia Basin DPS	T*	NOAA	none
yelloweye rockfish (<i>Sebastes ruberrimus</i>) Puget Sound/Georgia Basin DPS	T*	NOAA	none

ESU = evolutionarily significant unit

DPS = distinct population segment

T = threatened

PT = proposed threatened

E = endangered

SOC = species of concern

C = candidate

* = Listing becomes effective on July 27, 2010.

NOAA = National Oceanic and Atmospheric Administration, Fisheries

USFWS = United States Fish and Wildlife Service

Of the species identified above, the salmonids are the most likely to be found in the vicinity of the project site. Puget Sound's nearshore marine habitats serve as migratory corridors for chinook salmon, bull trout and coho salmon. They are also used as rearing areas by juvenile chinook salmon and as foraging areas by coho salmon smolts. Coho salmon can also be found in Fauntleroy Creek, which they have used for spawning since 1994.

NOAA Fisheries identifies the southern resident killer whale, humpback whale, and stellar sea lion as species that may occur in Puget Sound. However, it is unlikely that they will be present in the vicinity of the project site. Likewise, marbled murrelets are found in nearshore marine environments, but it is unlikely that they will be present in the vicinity of the project site. According to the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) database, no marbled murrelet occupancy sites have been identified near the site.

NOAA Fisheries recently decided to list the Puget Sound/Georgia Basin DPS of bocaccio rockfish (*Sebastes paucispinis*) as "endangered," the Puget Sound/Georgia Basin DPS of canary rockfish (*Sebastes pinniger*) as "threatened," and the Puget Sound/Georgia Basin DPS of yelloweye rockfish (*Sebastes ruberrimus*) as "threatened" under the ESA. These listings will become effective on July 27, 2010. Critical habitat has not yet been identified for these species. These species are present in Puget Sound, however, it is unlikely that they will be present in the vicinity of the project site. Bocaccio and canary rockfish are most commonly found at depths between 160 and 820 feet.

Yelloweye rockfish can occur in waters as shallow as 80 feet, but are most commonly found at depths between 300 and 590 feet.

The WDFW PHS database identifies a bald eagle nest in Lincoln Park, approximately one half of a mile north of the project site.

WDFW identifies two Priority Habitat areas in the vicinity of the project site. The first area, Fauntleroy Cove, is located immediately west of the project site and is classified as an estuarine zone. Dewatering water may be discharged to Fauntleroy Cove via the storm sewer system, however, no impacts to the habitat area are anticipated. The second area, which includes the majority of Lincoln Park, is located approximately one quarter of a mile north of the project site and classified as urban natural open space. No impacts to the habitat area are anticipated to result from the proposed project.

c. Is the site part of a migratory route? If so, explain.

Chinook salmon, bull trout, and coho salmon are known to use Puget Sound nearshore habitats as migratory corridors. The entire Puget Sound area is part of the Pacific Flyway for migratory birds.

d. Proposed measures to preserve or enhance wildlife, if any.

The project itself is a measure to minimize potential impacts on wildlife. Installation of the new equipment and stand-by generator will reduce the likelihood of adverse impacts on aquatic life resulting from sewer overflows to Puget Sound.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Temporary project energy needs will be limited to those required to operate construction equipment, the pumps that will be used to bypass sewage around the dry well, dewatering pumps, and the mobile odor control unit. Construction equipment and the two back-up sewage pumps will use fossil fuels. The submersible sewage bypass pumps and the odor control unit will use electricity.

In the completed project, electricity will be used to operate the upgraded pump station's new equipment, instrumentation, and controls. This will include the odor control system, the wastewater pumps, and the HVAC system. The stand-by generator will be powered by diesel fuel.

- b. Will the project affect the potential use of solar energy by adjacent properties? If so, explain.**

No.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.**

The proposed new pumps, lighting systems, and HVAC equipment will be energy efficient.

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spills, or hazardous waste that could occur as a result of this proposal? If so, describe.**

Potential exposure to construction-related materials such as fuel and hydraulic fluid could occur as the result of accidental spills, mechanical failures, or if the construction activities deviate from the project construction specifications or permit conditions.

It is possible that raw sewage could be spilled when the temporary pumping system that will be used to route sewage around the pump station's dry well is installed, operated, or disconnected.

Diesel fuel could be spilled when the 2,500 gallon underground storage tank is filled.

- 1. Describe special emergency services that might be required.**

None.

- 2. Describe proposed measures to reduce or control environmental health hazards.**

Section B.3.d discusses typical BMPs that could be implemented to prevent spills of contaminants and minimize exposure to environmental health hazards in the event of a spill.

The temporary wastewater pumping system will include two surface mounted back-up pumps that can be used during peak flows or if one or both of the temporary submersible pumps fail. This will reduce the risk of sewage overflows to Puget Sound. A sewer bypass plan will be prepared by the contractor. The plan will include measures that will be taken to prevent

spills of sewage and measures that will be taken to contain and clean up spills in the unlikely event that they occur.

The project itself is a measure to reduce environmental health hazards. Installation of a stand-by generator at the pump station will reduce the risk of sanitary sewer overflows, which can present a public health hazard. Upgrading of the pump station's equipment will reduce the potential for equipment failure and resulting overflows of sewage to Puget Sound.

Upgrading the odor control system so that air changes in the pump station's wet well occur more frequently will reduce hydrogen sulfide levels in the wet well, making the facility safer.

b. Noise

1. What types of noise exist in the area which may affect your project (for example: traffic, equipment operation, other)?

The project site is located in a primarily residential area. Traffic associated with the ferry dock that borders the project site to the south accounts for the majority of the background noise at the project site. This noise will not affect the project.

2. What types and levels of noise will be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)?

Construction-related noise will include engine noise and mechanical and scraping noises associated with the use of heavy equipment such as bulldozers, graders, loaders, and excavators. Construction noise levels will vary depending on the specific equipment being used. These types of equipment typically generate noise in the range of 80 to 90 dBA at a distance of 50 feet. Hauling activities to and from the project site will contribute to traffic noise.

Noise levels associated with the installation of sheet piles will depend on the method of installation, which will be determined by the contractor. If an impact pile driver is used, noise levels could reach 110 dBA at a distance of 50 feet. Other installation tools, such as a vibratory hammer, will generate less noise. It is anticipated that it will take approximately one month to install the sheet piles required for the project.

During approximately 20 months of the construction period, the temporary odor control unit will continuously generate noise at a level of approximately 70 dBA at a distance of 30 feet. Continuous noise will also be generated during approximately 20 months of the construction period by two temporary pumps that will be submersed in the wet well. They will

generate noise at a level of approximately 60 dBA at a distance of 30 feet. Noise detectable outside the pump station from this source will be less because the pumps will be enclosed in the station. If one or both of the submersible pumps fail or an emergency occurs and one of the temporary diesel engine pumps located at ground surface needs to be used, it will generate noise at a level of up to approximately 80 dBA at a distance of 30 feet. Pumps used for dewatering excavations will also produce continuous noise for approximately 24 months.

Once the project is completed, noise will be produced by continuous operation of the pumps and upgraded odor control system (primarily, fan operation) and occasional operation of the stand-by generator. Temporary operation of the stand-by generator will minimally raise noise levels in the project vicinity. It is anticipated that the stand-by generator will be operated for maintenance purposes once a month for approximately one hour. This will be done during normal weekday work hours. It is anticipated that the generator will be operated during power outages one time per year for a maximum of 24 hours each occurrence.

3. Describe proposed measures to reduce or control noise impacts, if any.

Measures to reduce or control noise impacts during construction could include the following:

- Using mufflers on all gas powered equipment;
- Providing electricity from the power grid and encouraging the use of electric or hydraulic tools whenever practicable;
- Notifying residents and businesses near active construction areas of upcoming noisy construction activities;
- Establishing a 24-hour construction hotline to promptly respond to questions and complaints; and
- Using noise attenuation barriers/enclosures around certain construction equipment.

Construction operations will comply with the City of Seattle's Noise Ordinance. The ordinance restricts construction activities to the hours of 7:00 AM to 10:00 PM, Monday through Friday and 9:00 AM to 10:00 PM on weekends and holidays. Work outside of these hours will require a noise variance from the City. As described above, pumps and other equipment will generate noise 24 hours per day during the construction period.

The pump building will be designed to mitigate potential post-construction noise sources identified above. Mitigation of noise will be accomplished through the design of the building structure and the selection of equipment.

All new noise producing equipment will be enclosed in a building, which will reduce noise levels outside of the pump station. The completed pump station will comply with noise levels specified by the City of Seattle and noise levels outside of the completed pump station will not exceed noise levels generated by the existing pump station.

8. Land and Shoreline Use

a. What is the current use of the properties adjacent to the site?

The pump station site is in City of Seattle right-of-way. The Barton Street Pump Station structure is located partially below grade in the southeast quarter of the site. The northern portion of the site provides pedestrian access from Fauntleroy Way Southwest to the Puget Sound beach. The property to the north of the pump station site is a residential property. This property is owned by King County and the single family home on the site is not currently occupied. The next property to the north is an occupied private single family residence.

The project site is located in a primarily residential area. The site is bordered to the south by the Fauntleroy Ferry Terminal, to the east by Fauntleroy Way Southwest, to the north by a private residence, and to the west by Puget Sound beach.

b. Has the site been used for agriculture? If so, describe.

No.

c. Describe any structures on the site.

The Barton Street Pump Station structure is located partially below grade in the southeast quarter of the project site. It is approximately 1,260 square feet in size. A single family home and detached garage are located on the residential property north of the pump station. The Fauntleroy ferry dock adjoins the project site to the south.

d. Will any structures be demolished? If so, what?

Approximately 24 square feet of the north Fauntleroy Ferry Terminal access lane and sheet piling will be demolished and replaced with a corner of the proposed new valve room. The structural integrity of the lane, which is a slab on grade in this location, will be maintained.

e. What is the current zoning classification of the site?

The majority of the site is currently zoned residential, single family 5,000 by the City of Seattle. A small portion of the southwest corner of the site is currently zoned residential, single family 9,500 by the City of Seattle.

f. What is the current comprehensive plan designation of the site?

The site is zoned residential, single family.

g. If applicable, what is the current shoreline master program designation of the site?

The site is designated as an Urban Residential shoreline environment.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

Yes. The portion of the site where the pump station is located has been classified by the City of Seattle as a Liquefaction Prone Environmentally Critical Area (ECA). The portion of the project site to the west of the existing pump station has been classified by the City as a Flood Prone ECA and a Shoreline Habitat ECA.

i. Approximately how many people will reside or work in the completed project?

No people will reside in the completed project. The facility will be visited one to two times each week by facilities maintenance staff.

j. Approximately how many people will the completed project displace?

None.

k. Describe proposed measures to avoid or reduce displacement impacts, if any.

None.

l. Describe proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

The proposed new partially underground structure will be compatible with the existing use of the site for the Barton Street Pump Station. Following completion of the project, the northern portion of the site will still provide beach access from Fauntleroy Way southwest.

9. Housing**a. Approximately how many units will be provided, if any? Indicate whether high, middle, or low-income housing.**

None.

- b. Approximately how many units, if any, will be eliminated? Indicate whether high, middle, or low-income housing.**

No housing will be permanently eliminated. The house north of the pump station, which is owned by King County, will be used as a construction management office during construction.

- c. Describe proposed measures to reduce or control housing impacts, if any.**

None.

10. Aesthetics

- a. What is the tallest height of any of the proposed structure(s), not including antennas? What is the principal exterior building material(s) proposed?**

The proposed new structures will be located predominantly below ground. An approximately 12-foot-tall generator exhaust stack and a 12-foot tall fuel tank vent stack will be located above ground near the project site's southern border.

Other new equipment that will be located above ground include: an approximately 5' (l) x 3' (w) x 3' (h) water supply backflow preventer; an approximately 4' (l) x 3' (w) x 3' (h) water supply air gap; an approximately 4' (l) x 3' (w) x 4' (h) cooling system condenser unit; an approximately 8' (l) x 8' (w) x 8' (h) transformer; and an approximately 5' (l) 2' (w) 4' (h) load bank connection panel. These units will have metal exteriors.

The new above-ground transformer, which will be located along the northern pump station site boundary, will be separated from the neighboring property to the north by a new wall that will run along the property line. The approximately 16-foot-long section of wall immediately behind the transformer will be approximately 12 feet tall. The rest of the wall will be between four and ten feet tall.

A new handrail will be installed around the perimeter of the pump station's roof.

- b. What views in the immediate vicinity will be altered or obstructed?**

Although the proposed new rooms will be constructed mostly underground, the new site grading described in Section B.1.e and the equipment described in Section 10.a, above, will minimally alter the look of the proposed site. Views will not be blocked.

- c. Describe proposed measures to reduce aesthetic impacts, if any.**

The majority of the proposed new structures will be located below ground. A rock garden will be installed to cover the west-facing pump station wall and all or part of the north-facing pump station walls.

Artwork currently on the project site, including art rocks, a concrete canoe, and other items will be salvaged and stored during construction, then restored to the project site. One of these items is a concrete "tideline" of rocks, shells, and other materials near the northern border of the project site that was prepared and installed by a local community group working with an artist. This artwork is a two- to three-foot-wide strip that extends from Fauntleroy Way Southwest to the site's western border. Parts of the tideline will be salvaged prior to construction of the proposed project and used to enhance the site at the end of construction.

11. Light and Glare

- a. What type of light and glare will the proposal produce? What time of day will it mainly occur?**

Temporary lighting may be used at the construction site on dark afternoons in winter months.

The existing street light located on the pump station site near the ferry terminal's north toll booth will be replaced in kind. The completed project will not produce additional light or glare.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?**

No.

- c. What existing off-site sources of light or glare may affect your proposal?**

None.

- d. Describe the proposed measures to reduce or control light and glare impacts, if any.**

Lighting placement and direction at the construction site will be designed to minimize impacts to adjacent properties.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?**

The pump station site is a street-end park ("Cove Park") that was created by a local neighborhood group. The park contains landscaping that is maintained by

community members. The northern portion of the pump station site provides pedestrian access from Fauntleroy Way Southwest to the beach. The beach is used primarily by local community members for walking, boating and fishing. Small, privately-owned boats are stored on the beach in front of the pump station. These will need to be removed prior to construction. Lincoln Park, located about one quarter mile north of the project site, provides beach access and a variety of other recreational activities. Lincoln Park will not be affected by the project.

b. Will the proposed project displace any existing recreational uses? If so, describe.

Due to safety issues beach access provided by the northern section of the project site will be unavailable for the duration of the approximately 30- to 36-month construction period. The beach, itself, west of the pump station could be temporarily inaccessible by the public when work is occurring on the west side of the pump station and will not be available for boat storage during construction. The project site will also not be available for community gardening activities during construction.

c. Describe proposed measures to reduce or control impacts on recreation, including recreational opportunities to be provided by the project or applicant.

Landscaping and pedestrian beach access from Fauntleroy Way Southwest will be restored as part of the project, except for approximately 172 square feet of the project site's rock garden and approximately 225 square feet of landscaping on the pump station site's northern border. This vegetation will be removed, but not replaced. However, a new approximately 50-square-foot rain garden will be created on the west end of the beach access driveway.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on or eligible for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No.

b. Generally describe any landmarks or evidence of historic, archeological, scientific, or cultural importance known to be on or next to the site.

Records at the Burke Museum include reference to important archaeological resources that were exposed by a road widening project approximately 200 feet east of the Barton Street Pump Station. The records indicate that the artifacts were collected by Burke Museum staff in 1924, but other accounts indicate the road widening project occurred between 1914 and 1916. No artifacts associated

with the road-widening project are in the Burke Museum's archaeological collections.

The project site is mapped as Archaeological Buffer by the City of Seattle because it is located within 200 feet of the Government Meander Line, which identifies the location of historic saltwater shorelines.

c. Describe proposed measures to reduce or control impacts, if any.

Excavation activities and geotechnical work on the east and west sides of the existing pump station structure will be monitored by a professional archaeologist, except when those areas being excavated are previously disturbed deposits of artificial fill. If artifacts are uncovered during excavation, work will be stopped in that area pending notification of and response from appropriate agencies.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Access to the project site is provided by Fauntleroy Way Southwest, which borders the project site to the east and provides predominantly north-south access from the West Seattle Freeway to the Fauntleroy Ferry Terminal. Southwest Barton Street, which borders the project site to the south, is an access street that connects Fauntleroy Way Southwest to the Fauntleroy Ferry Terminal. It extends westward out onto the terminal pier and has a total of six lanes.

Approximately 80 feet of Fauntleroy Way Southwest's western sidewalk may be temporarily converted to driveway to provide vehicle access to the project site during project construction.

b. Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Yes. The site is served by King County Metro Transit bus routes 54, 116, 118 and 119 and by Sound Transit bus route 560. Bus stops are located on both sides of Fauntleroy Way Southwest at Southwest Barton Street. During construction, bus stops may be temporarily relocated to new sites that are a short distance away from their current locations.

c. How many parking spaces will the completed project have? How many will the project eliminate?

No parking spaces will be permanently created or eliminated.

A small number of Washington State Ferries personnel park vehicles on the Barton Street Pump Station site. The site can temporarily accommodate three to five vehicles. These unofficial parking spaces will not be available during construction of the proposed project.

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe.**

Approximately 80 feet of Fauntleroy Way Southwest's western sidewalk near the project site will be disturbed or partially demolished during construction. The sidewalk will be returned to its pre-construction condition at the end of construction.

An approximately three-foot-wide by two-foot-deep trench will be excavated across Fauntleroy Way Southwest to install a new four-inch-diameter water service line between the southeastern corner of the pump station and the eastern edge of Fauntleroy Way Southwest. It is expected that this work will be completed in one night.

Electrical work, as described in Section B.16.b, will require excavation on the east end of Southwest Barton Street. The street will be returned to its pre-construction condition at the end of construction.

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

Yes. The project site is bordered to the south by the Fauntleroy Ferry Terminal, which is owned and operated by the WDOT Ferries Division (WSF). WSF operates ferry service from the Fauntleroy Ferry Terminal to the Vashon Island Terminal and the Southworth Terminal on the Kitsap Peninsula. Entry to and exit from the ferry terminal is provided by Southwest Barton Street, which extends westward out onto the terminal pier and has a total of six lanes.

Construction of some portions of the proposed project will require use of the north Fauntleroy Ferry Terminal access lane. Construction tasks that require use of the lane include driving sheet piles and excavating at the southeast and southwest corners of the project site, moving utilities, and installing pump station anchors. These tasks will be performed during the off-peak ferry terminal season (October 1-May 15) or during the peak season on weekdays before 2:00 PM to minimize impacts to ferry operations and traffic.

- f. How many vehicular trips per day will be generated by the completed project? If known, indicate when peak volumes will occur.**

None. The Barton Street Pump Station is currently visited one or two times each week by facilities maintenance staff. Monthly testing of the stand-by generator

will be combined with these visits, so the completed project will not generate any additional vehicular trips.

During project construction, approximately 6 to 16 one-way vehicle trips per day will typically be made to and from the project site. The number of trips will depend on the work being performed. The most noticeable construction activity in terms of construction traffic is likely to be associated with the import and export of material to and from the site. On days when hauling occurs, there may be an average of 16 to 20 one-way dump truck trips per day. It is estimated that hauling activity would be expected on 32 to 40 days during the 30- to 36-month construction period. The total number of one-way truck trips required during project construction is estimated to be approximately 6,400.

g. Describe proposed measures to reduce or control transportation impacts, if any.

WTD has worked closely with WSF staff to develop traffic control plans and operational parameters that will minimize impacts of the proposed project on ferry terminal operations and traffic.

Three traffic control configurations have been developed to accommodate construction tasks that require intermittent partial and full closures of the northern toll collection lane at the ferry terminal. Construction tasks that require closure of the northern ferry lane will be performed during the off-peak ferry terminal season (October 1-May 15) or during the peak season on weekdays before 2:00 PM.

For all traffic configurations, a construction flagger will be used at the project driveway whenever there is construction activity. The construction flagger will assist truck drivers entering and exiting the project site driveway, assist pedestrians crossing the construction site access, and assist large-vehicle drivers entering the Fauntleroy Ferry Terminal.

A traffic control plan will be developed by the contractor to identify site access measures, truck haul routes, construction and hauling schedules, and parking plans that minimize impacts to nearby residential streets. The plan will identify and address temporary lane and sidewalk closures, if required. This plan will be submitted for review and approval to the Seattle Department of Transportation.

Trenching across Fauntleroy Way Southwest to install the new water service line will occur during night when traffic volumes are low. Steel plates will be used to cover the trench and ensure that at least one lane will remain open at all times. Following installation of the water line the disturbed section of Fauntleroy Way Southwest will be repaved.

15. Public Services

- a. Will the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally explain.

No.

- b. Describe proposed measures to reduce or control direct impacts on public services.

None.

16. Utilities

- a. Underline utilities currently available at the site: Electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic systems, other
- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

The proposed project will provide stand-by ("back-up") power for the pump station and the ferry terminal.

Seattle City Light will relocate electrical utility lines at the project site to accommodate construction of the proposed project. The work will include installation of a new approximately 5'(l) x 5'(w) x 7'(h) junction vault near the bus shelter located in Southwest Barton Street and installation of electrical conduit connecting the existing utility pole near the bus shelter, the new junction vault, the existing transformer vault located in the north ferry terminal access lane, new electrical panels on the ferry terminal site near the west end of the pump station, and the pump station site. Additionally, a utility pole located in the northeast corner of the project site will be moved approximately 25 feet north of its current location to facilitate construction. This work may be performed prior to Summer 2012.

The pump station is currently served by a transformer located in an underground vault in the north ferry terminal access lane. This transformer will be replaced with a new larger transformer that will be placed above ground in the northeast corner of the pump station site. The transformer will be approximately 8'(l) x 8'(w) x 8'(h) and sit atop a new approximately 15-square-foot pad. It will be separated from the residential property to the north by an approximately 12-foot-tall wall. The vault in the north ferry terminal access lane will be used for a new transformer that will serve the ferry terminal.

A new four inch water service line will be required for the expanded pump station's fire suppression system. The service will be extended from the existing 16-inch-diameter City of Seattle water main on the upper tier of Fauntleroy Way Southwest.

The completed project will use water and electricity provided by the City of Seattle.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Wesley Sprague

Date Submitted: 5/26/10

King County Greenhouse Gas Emissions Worksheet—Barton Street Pump Station Upgrade Project

Section I: Buildings

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO2e)			Lifespan Emissions (MTCO2e)
			Embodied	Energy	Transportation	
Single-Family Home.....	0		98	672	792	0
Multi-Family Unit in Large Building	0		33	357	766	0
Multi-Family Unit in Small Building	0		54	681	766	0
Mobile Home.....	0		41	475	709	0
Education		0.0	39	646	361	0
Food Sales		0.0	39	1,541	282	0
Food Service		0.0	39	1,994	561	0
Health Care Inpatient		0.0	39	1,938	582	0
Health Care Outpatient		0.0	39	737	571	0
Lodging		0.0	39	777	117	0
Retail (Other Than Mall).....		0.0	39	577	247	0
Office		0.0	39	723	588	0
Public Assembly		0.0	39	733	150	0
Public Order and Safety		0.0	39	899	374	0
Religious Worship		0.0	39	339	129	0
Service		0.0	39	599	266	0
Warehouse and Storage		0.0	39	352	181	0
Other		2.4	39	1,278	257	3754
Vacant		0.0	39	162	47	0

Section II: Pavement.....

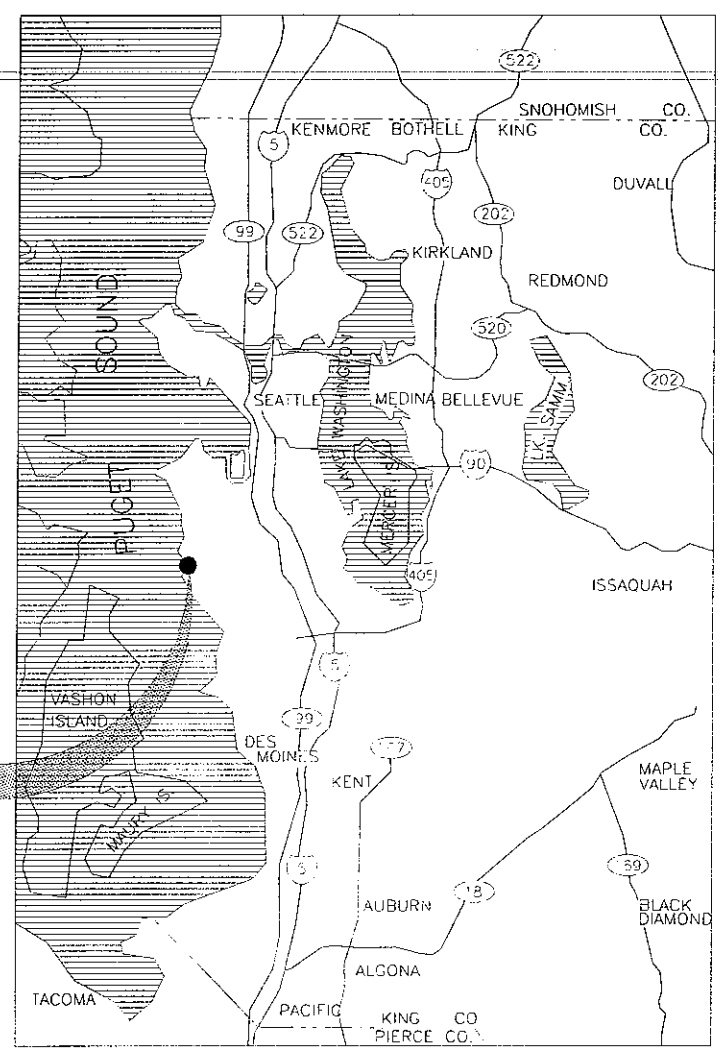
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Total Project Emissions:

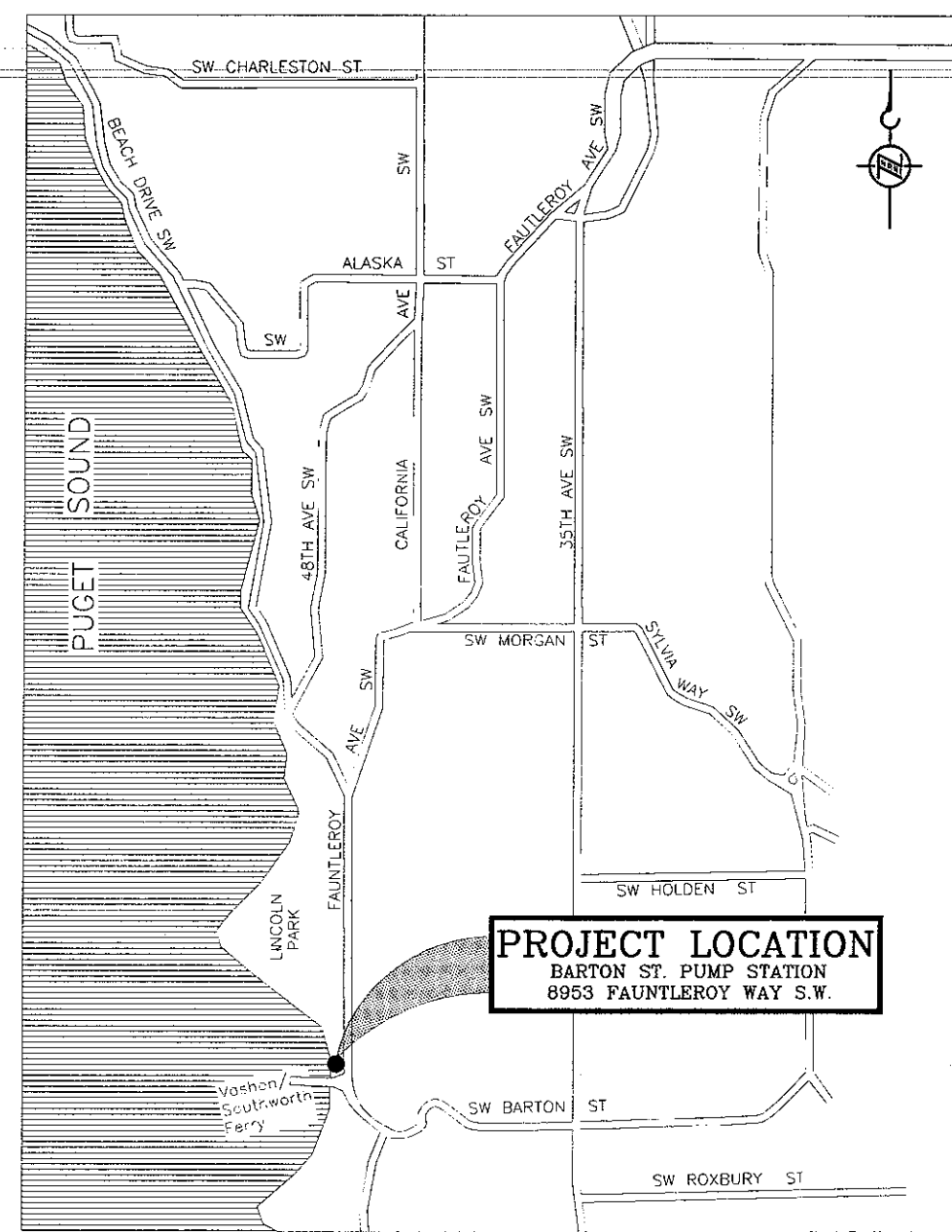
3828

Note: The proposed project consists of adding 2,385 square feet to an existing 1,250-square-foot underground wastewater pump station.

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VICINITY MAP
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MILES

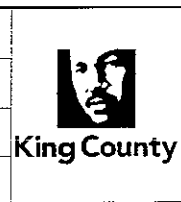


LOCATION MAP
NOT TO SCALE

**FOR PERMIT
REVIEW ONLY**

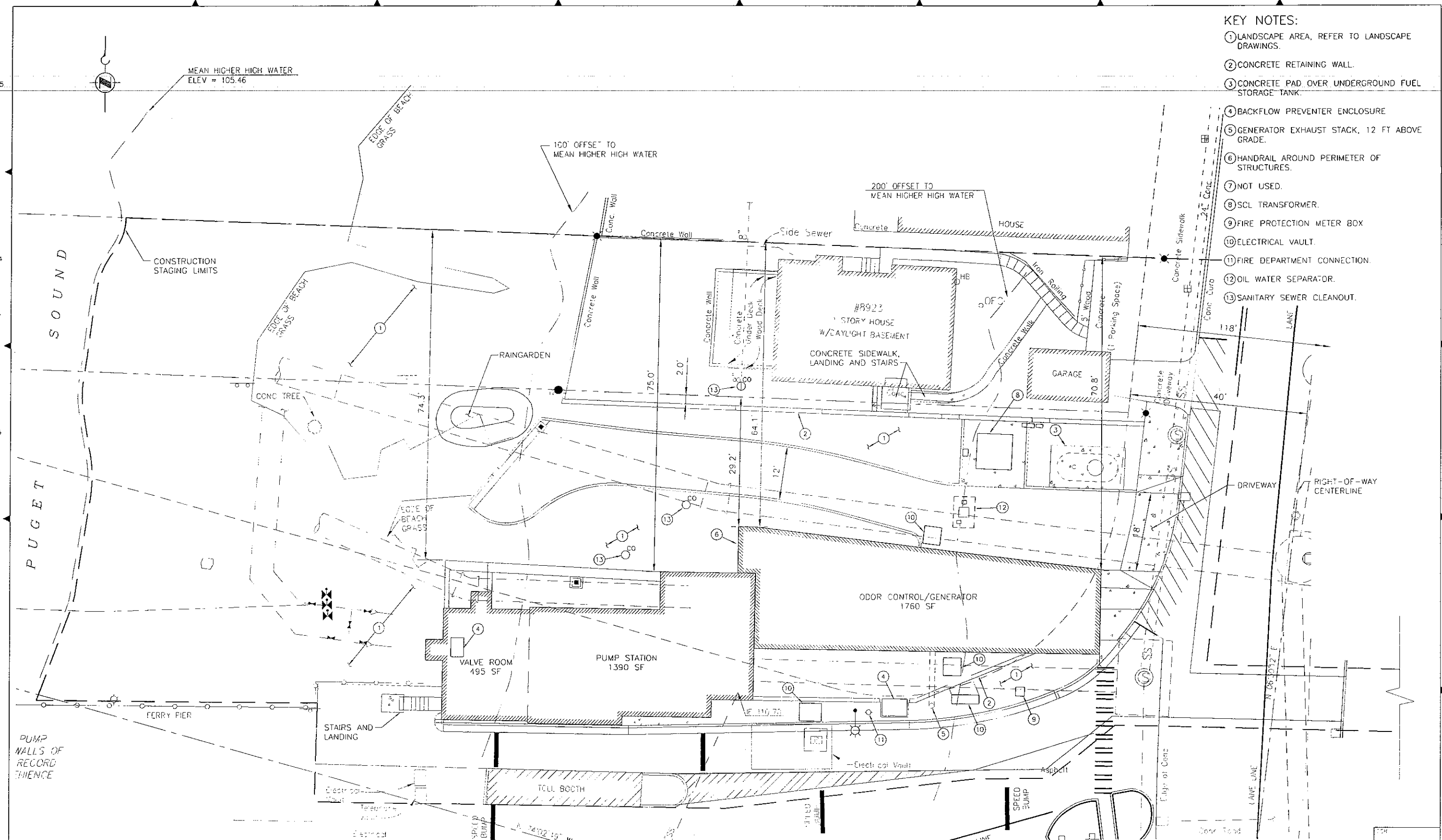
No.	REVISION	BY	APP'D.	DATE

DESIGNED/DRAWN: T. BROWNE	QA/QC: R. WARD
PROJECT ENGINEER: M. GILBROUGH	SCALE: NONE
DESIGN APPROVAL: R. BROWNE	ONE INCH (REFERENCE)
PROJECT ACCEPTANCE: S. HILDRETH	CONTRACT NO:



DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
BARTON PUMP STATION
UPGRADE
VICINITY & LOCATION MAPS

DCN:
DATE: MAY 2010
PROJECT FILE NO: 423530
DRAWING NO: G101
SHEET NO: OF

[illegible]

**FOR PERMIT
REVIEW ONLY**



DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
BARTON PUMP STATION
UPGRADE

FORM	
DATE	
JUNE 2010	
PROJECT FILE NO.	
423630	
DRAWING NO.	
MUPO3	
SHEET NO.	OF

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DATE	JUNE 20 '9
PROJECT FILE NO.	423530
DRAWING NO.	MUP11
SHEET NO.	OF



King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
BARTON PUMP STATION
UPGRADE

PLANTING PLAN